

Remarks

Claims 1-9, 11-18 and 20 are pending. Claims 1, 11 and 18 are herein amended. Applicants submit that the amendments do not add new material to the current Application. No amendment made is related to the statutory requirements of patentability unless expressly stated herein. No amendment made is for the purpose of narrowing the scope of any claim, unless Applicants argue herein that such amendment is made to distinguish over a particular reference or combination of references.

Applicants respectfully submit claims 1-4, 8-9, 11-14, 17-18, and 20 are patentable over Lee (U.S. 6,222,212) under 35 U.S.C. 102(e) and further in all respects. Applicants herein amend claims 1, 11 and 14 to explicitly state that a packaging material is in contact with the fuse. As reached in agreement during a telephone interview on February 5, 2003 with the Examiner, the prior art fails to teach or suggest this feature. More specifically, Lee's substrate 803 is not in contact with Lee's fuse (programmable element) 813. (See FIG. 8B). Instead, multiple layers such as insulator 804 are between the substrate 803 and the fuse 813.

Applicants submit the pending claims are patentable for additional reasons. For example, Lee's substrate 803 cannot be a packaging material. Lee teaches forming the programmable element in the substrate and teaches that the substrate is a semiconductor. (A semiconductor is needed to provide the solid state physics necessary to form a working programmable element as a skilled artisan recognizes.) In semiconductors, there are two different types of substrates: i) semiconductor substrates (i.e., wafers) and ii) packaging substrates (i.e., resin glass). As a skilled artisan recognizes the two cannot be interchanged with each other because a semiconductor substrate is chosen based on its semiconductor properties and a packaging substrate is chosen based on its insulating properties. Thus, a substrate cannot be made of resin if it is a substrate in which semiconductor devices are being formed (i.e., a semiconductor wafer.) Lee teaches this type of substrate and thus, Lee's substrate cannot be a resin material. A skilled artisan would not replace Lee's substrate with resin because doing so would destroy the functionality (i.e., semiconductor properties) of the device.

Believing to have responded to every issue raised by the Examiner, Applicants believe the present Application is currently in a condition of allowance. Applicants thank the Examiner for pointing out allowable subject matter, but herein earnestly solicit allowance of all pending claims. Please contact Applicant's practitioner listed below if there are any issues.

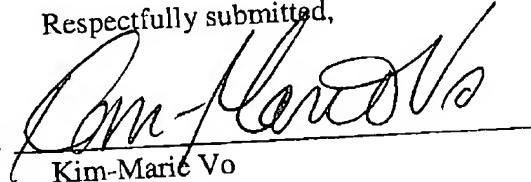
SEND CORRESPONDENCE TO:

Motorola, Inc.  
Law Department

Customer Number: 23125

Respectfully submitted,

By:



Kim-Marie Vo

Agent of Record

Reg. No.: 50,714

Telephone: (512) 996-6839

Fax No.: (512) 996-6854

Email: K.Vo@Motorola.com

IN THE CLAIMS - VERSIONS WITH CHANGES SHOWN

1. (Twice Amended) A semiconductor device, comprising:
  - a substrate having circuitry formed therein;
  - a passivation layer formed overlying at least a portion of the substrate;
  - a fuse, which may be selectively open-circuited, formed overlying the passivation layer;
  - and
  - a packaging material formed [on] in contact with the fuse.
  
11. (Twice Amended) A semiconductor device, comprising:
  - a substrate having a first circuit formed therein and a second circuit formed therein,
    - wherein the first circuit has a first contact area and the second circuit has a second contact area;
  - a passivation layer formed overlying at least a portion of the substrate;
  - a fuse, which may be selectively open-circuited, formed overlying the passivation layer,
    - the fuse having a third contact area which is electrically coupled to the first contact area of the first circuit, and the fuse having a fourth contact area which is electrically coupled to the second contact area of the second circuit, wherein the first contact area of the first circuit and the second contact area of the second circuit are no longer electrically connected if the fuse is open-circuited; and
  - a packaging material formed [on] in contact with the fuse.
  
18. (Twice Amended) A method for forming a semiconductor device having a fuse, comprising:
  - providing a substrate;
  - forming a passivation layer overlying at least a portion of the substrate;
  - forming the fuse overlying the passivation layer; and
  - forming a packaging material [on] in contact with the fuse.